

The dataset contains data for this study:

Elemental microanalyses.

^1H and ^{13}C NMR spectra (raw and processed data).

X-ray Crystallographic data:

- Structure of 2,6-di(4-iodopyrazol-1-yl)pyridine (bpyl² – CCDC 2076471).
- Structure of $L^1\text{C}_{12}$ (CCDC 2076472).
- Structure of $L^1\text{C}_{16}$ (CCDC 2076473).

X-ray powder diffraction data (measured and simulated).

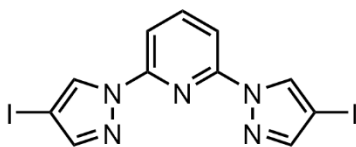
Solid state magnetic susceptibility measurements (raw and processed data).

Differential scanning calorimetry (raw and plotted data)

Thermogravimetric analyses (raw and plotted data)

Minimised molecular mechanics models (*SPARTAN* files).

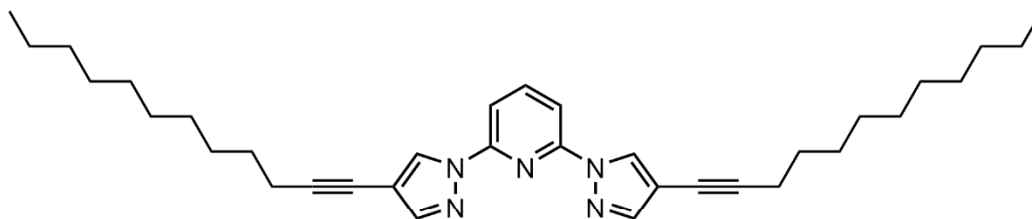
Organic ligands referred to in this dataset



2,6-Di(4-iodopyrazol-1-yl)pyridine

$C_{11}H_7I_2N_5$

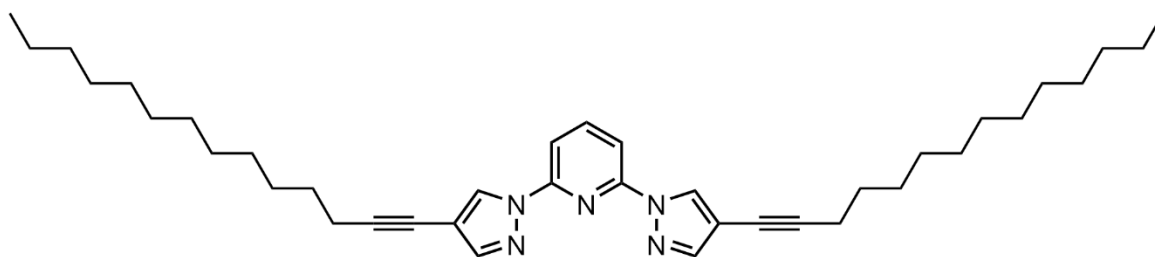
bpp^{I_2}



2,6-Di(4-{dodecyn-1-yl}pyrazol-1-yl)pyridine

$C_{35}H_{49}N_5$

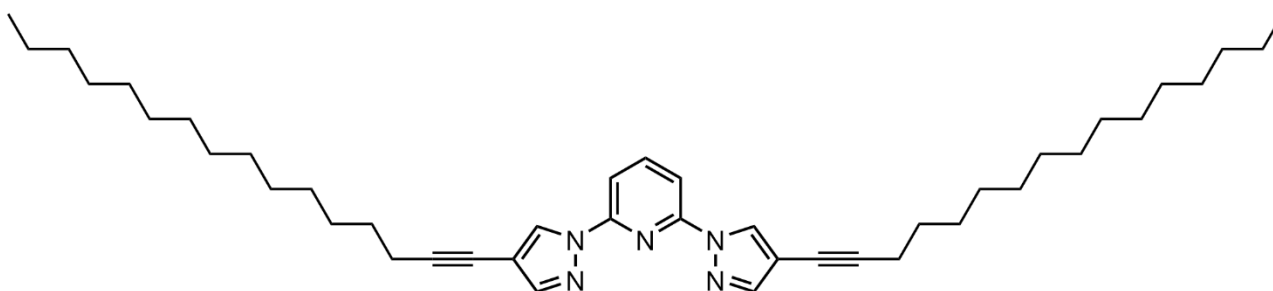
L^1C_{12}



2,6-Di(4-{tetradecyn-1-yl}pyrazol-1-yl)pyridine

$C_{39}H_{57}N_5$

L^1C_{14}

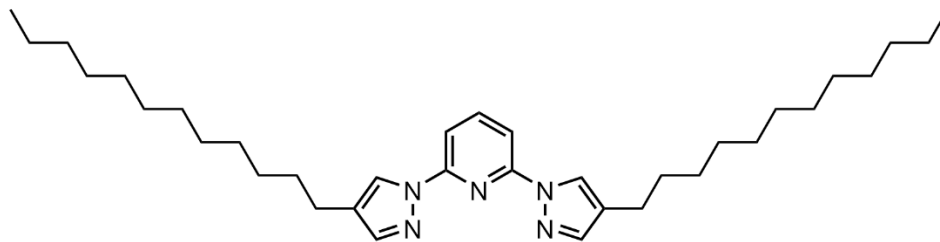


2,6-Di(4-{hexadecyn-1-yl}pyrazol-1-yl)pyridine

$C_{43}H_{65}N_5$

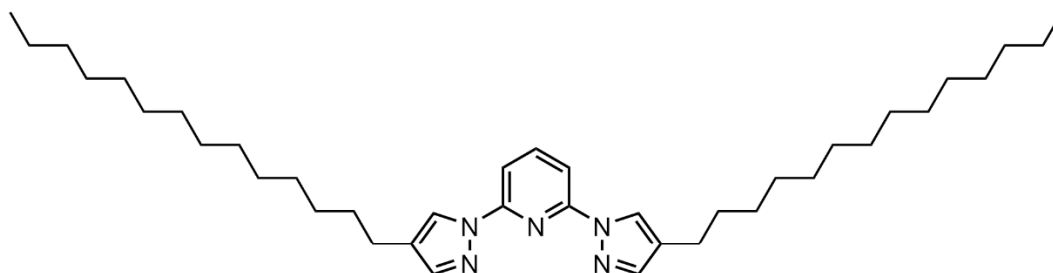
L^1C_{16}

Organic compounds referred to in this dataset (continued)



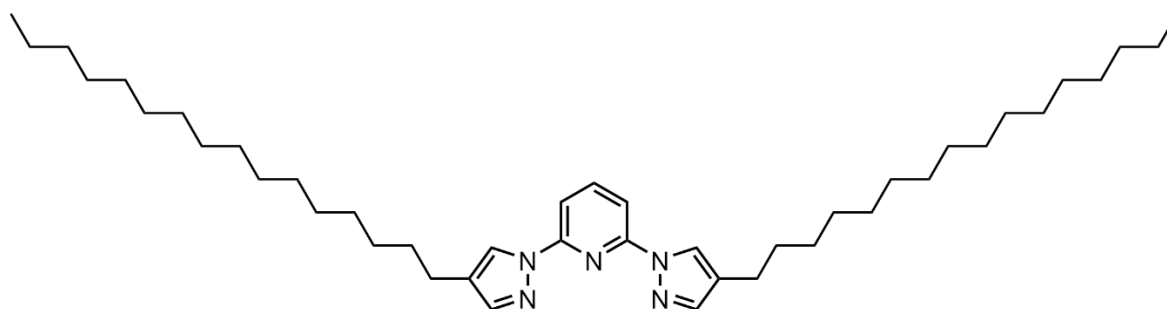
2,6-Di(4-{dodecyl}pyrazol-1-yl)pyridine

$C_{35}H_{57}N_5$
 L^2C_{12}



2,6-Di(4-{tetradecyl}pyrazol-1-yl)pyridine

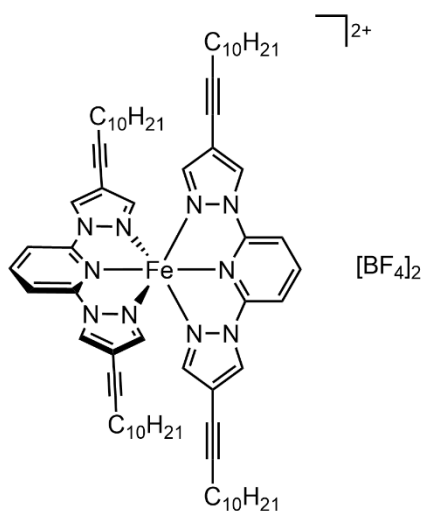
$C_{39}H_{65}N_5$
 L^2C_{14}



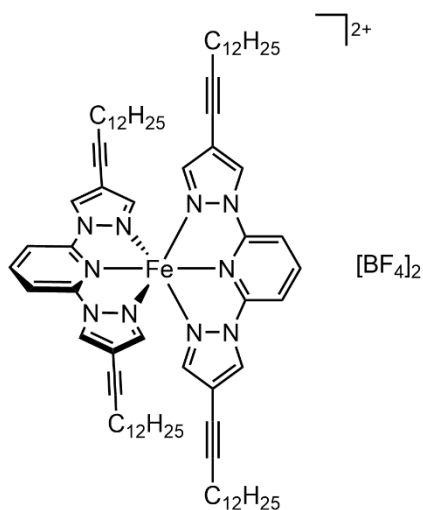
2,6-Di(4-{hexadecyl}pyrazol-1-yl)pyridine

$C_{43}H_{73}N_5$
 L^2C_{16}

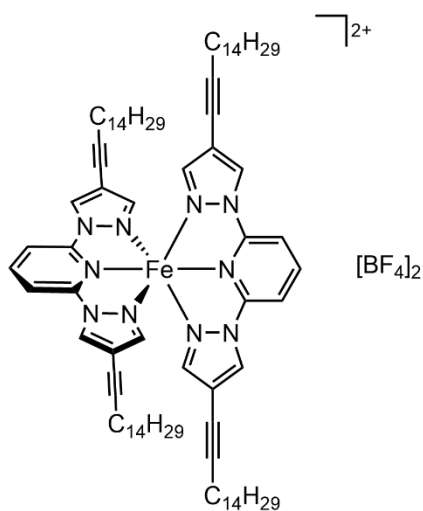
Metal complexes referred to in this dataset



Bis[2,6-di(4-{dodecyn-1-yl}pyrazol-1-yl)pyridine]iron(II) di(tetrafluoroborate)
 $\text{C}_{70}\text{H}_{98}\text{B}_2\text{F}_8\text{FeN}_{10}$
 $[\text{Fe}(\text{L}^1\text{C}_{12})_2][\text{BF}_4]_2$

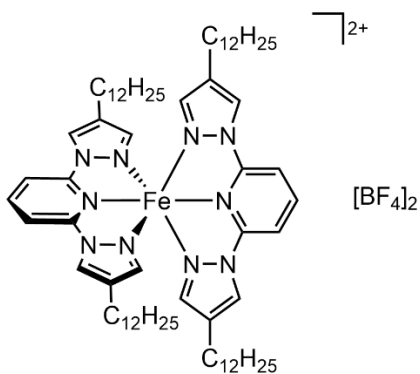


Bis[2,6-di(4-{tetradecyn-1-yl}pyrazol-1-yl)pyridine]iron(II) di(tetrafluoroborate)
 $\text{C}_{78}\text{H}_{114}\text{B}_2\text{F}_8\text{FeN}_{10}$
 $[\text{Fe}(\text{L}^1\text{C}_{14})_2][\text{BF}_4]_2$

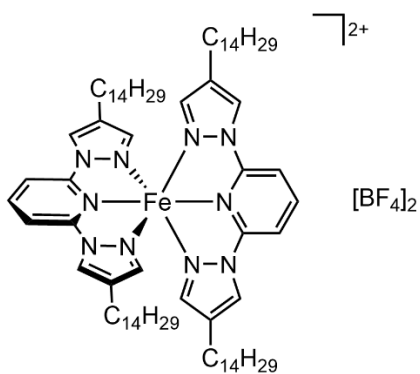


Bis[2,6-di(4-{hexadecyn-1-yl}pyrazol-1-yl)pyridine]iron(II) di(tetrafluoroborate)
 $\text{C}_{86}\text{H}_{130}\text{B}_2\text{F}_8\text{FeN}_{10}$
 $[\text{Fe}(\text{L}^1\text{C}_{16})_2][\text{BF}_4]_2$

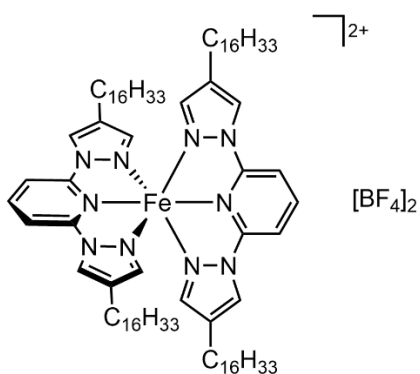
Metal complexes referred to in this dataset (continued)



Bis[2,6-di(4-{dodecyl}pyrazol-1-yl)pyridine]iron(II) di(tetrafluoroborate)
 $C_{70}H_{114}B_2F_8FeN_{10}$
 $[Fe(L^2C_{12})_2][BF_4]_2$



Bis[2,6-di(4-{tetradecyl}pyrazol-1-yl)pyridine]iron(II) di(tetrafluoroborate)
 $C_{78}H_{130}B_2F_8FeN_{10}$
 $[Fe(L^2C_{14})_2][BF_4]_2$



Bis[2,6-di(4-{hexadecyl}pyrazol-1-yl)pyridine]iron(II) di(tetrafluoroborate)
 $C_{86}H_{146}B_2F_8FeN_{10}$
 $[Fe(L^2C_{16})_2][BF_4]_2$